

Claims

1. Use of a particulate material derived from mammalian hair in the preparation of a paper or paperboard product, which particulate material has been prepared by means of a process, which comprises the following steps:
  - (a) subjecting mammalian hair to an oxidation treatment in which the hair is  
5 contacted with a solution, which comprises a bleaching agent;
  - (b) separating the oxidised hair from the solution;
  - (c) drying the separated hair; and
  - (d) subjecting the dried hair to a treatment in which the hair is formed into a  
particulate material having an average particle size in the range of from 0.5 to  
10 4 mm.
2. Use according to claim 1, wherein the particulate material has an average particle size in the range of from 1 to 3 mm.
- 15 3. Use according to claim 2, wherein the particulate material has an average particle size in the range of from 1.5 to 2.5 mm.
4. Use according to any one of claims 1-3, wherein the bleaching agent is selected from the group consisting of hypohalides, perborates, percarbonates,  
20 organic peroxides, or hydrogen peroxide.
5. Use according to claim 4, wherein the bleaching agent comprises hydrogen peroxide.
- 25 6. Use according to any of one of the claims 1-5, wherein the solution is an alkaline solution having a pH value in the range of from 9 to 11.

7. Use according to any one of claims 1-5, wherein the alkaline solution has a pH value in the range of from 10 to 11.
8. Use according to any or one of the claims 1-5, wherein the solution is an  
5 acidic solution having a pH value in the range of from 3 to 7.
9. Use according to claim 8, wherein the acidic solution has a pH value in the range of from 4 to 6.
- 10 10. Use according to any one of claims 1-9, wherein the treatment in step (d) is a refining treatment.
11. Use according to any one of claims 1-10, wherein the hair is first subjected to a washing step in which soluble components are removed from the  
15 hair before the hair is subjected to step (a).
12. Use according to any one of claims 1-11, wherein the hair is derived from livestock.
- 20 13. Use according to claim 12, wherein the hair is derived from pigs.
14. Use according to claim 14, wherein the particulate material comprises fibres.
- 25 15. A paper product comprising a particulate material as defined in any one of claims 1-14.
16. A paperboard product comprising a particulate material as defined in any one of claims 1-14.

17. Paper pulp comprising a particulate material as defined in any one of claims 1-14.